

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A digital data storage system comprising:
~~at least one~~ a storage element, the storage element comprising a plurality of storage locations each configured to ~~retrievably~~ store a retrievable record, ~~the at least one storage element being configured to retrievably store a series of records;~~
a memory configured to store, associated with each storage location, a descriptor of data, ~~the each~~ descriptor of data comprising having a check value for the record stored in the respective storage location associated with the descriptor of data device, ~~said memory being configured to store, associated with the descriptor associated with said at least one of said storage elements, a descriptor having a series of check values each associated with a respective one of said plurality of records;~~
a cache memory comprising a plurality of cache slots; and
a control device configured to
 - i. initiate retrieval of one of said records in response to receipt of a retrieval request requesting retrieval of one of said records from one of said storage locations, and,
 - ii. after said one of said records has been retrieved in response to the request, use the check value from the descriptor associated with the storage location identified in the retrieval request to verify that the one of said records is from the one of said storage locations identified in the retrieval request;~~a cache memory comprising a plurality of cache slots;~~
the control device being configured to, after retrieving said one of said records, selectively store the record in one of the cache slots and store a pointer thereto in said descriptor

of data, selective storage of the record being made such that a plurality of records from the same storage element are stored in the same cache slot.

2. (Currently Amended) A digital data storage system as defined in claim 1, the control device being further being configured to, if one of said records stored in one of said storage locations is updated, generate a check value for said one of said records and store the ~~generated descriptor~~ check value in the descriptor of data associated with said one of said storage locations.

3. (Currently Amended) A digital data storage system as defined in claim 1, in which said control device is further configured to, if one of said records stored in one of said cache slots is updated, generate ~~an updated a~~ a check value for said record and store the ~~updated~~ check value in the descriptor of data in said memory associated with said one of said storage locations ~~the one of said records~~.

4. (Currently Amended) A method of operating a digital data storage system, the digital data storage system comprising ~~at least one a~~ a storage element, the storage element comprising a plurality of storage locations each configured to ~~retrievably~~ store a retrievable record, and a memory configured to store, associated with each storage location, a descriptor of data, the descriptor of data comprising having a check value for the record stored in the respective storage location associated with the descriptor of data, the digital data storage system further comprising a cache memory comprising a plurality of cache slots, ~~said memory being configured to store, associated with the descriptor associated with said at least storage element, a descriptor having a series of check values each associated with a respective one of said series of records, said cache memory comprising,~~ the method comprising the steps of:

in response to a retrieval request requesting retrieval of a record from one of said storage locations, initiating retrieving said record[[,]];

after retrieving said record, selectively storing the record in one of the cache slots and storing a pointer thereto in said descriptor of data, the selective storage selection being made such that a plurality of records from the same storage element are stored in the same cache slot.

5. (Currently Amended) A method as defined in claim 4, further comprising the step of, if said record stored in one of said storage locations is updated, generating a check value for said record and storing the ~~generated~~ check value ~~in said memory~~ in the descriptor of data associated with said one of said storage locations.

6. (Currently Amended) A method as defined in claim 4, said method comprising the steps of, if one of said records stored in one of said cache slots is updated, generating an ~~updated~~ a check value for said record and storing the ~~updated~~ check value in the descriptor of data ~~in said memory~~ associated with said one of said storage locations ~~the one of said records~~.

7. (New) A digital storage system as defined in claim 1, wherein the descriptor of data describes the record and the storage location, and comprises:

a header section and a check value section;

wherein the pointer is stored in the header section and the header section includes information about the storage location;

wherein the check value section comprises the check value for the record stored in the respective storage location associated with the descriptor of data.

8. (New) A method as defined in claim 4, wherein the descriptor of data describes the record and the storage location, and comprises:

a header section and a check value section;

wherein the pointer is stored in the header section and the header section includes information about the storage location;

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wherein the check value section comprises the check value for the record stored in the respective storage location associated with the descriptor of data.